MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2022/2023 (TERM 2220)

BFM1024 – FINANCIAL MANAGEMENT

(All sections/Groups)

6 JULY 2023
9.00 A.M – 11.00 A.M
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 4 pages excluding the cover page.
2. Attempt **ALL** questions. The distribution of the marks for each question is given.
3. Please write all your answers the Answer Booklet provided.

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QUESTION 1

A. Define what working capital management is and list THREE (3) decisions that a financial manager makes that would fall under the category of working capital management. (7 marks)

B. You have RM 5,000 you want to invest for the next 45 years. You are offered an investment plan that will pay you 6 percent per year for the next 15 years and 10 percent per year for the last 30 years.

a. Show your timeline. (2 marks)
b. How much will you have at the end of the 45 years? (3 marks)
c. How much will you have at the end of 45 years if you save RM 5,000 per year in the investment plan and the interest rate is 6%? (4 marks)
d. Briefly explain THREE (3) reasons why it is important for everyone to know the time value of money concept. (9 marks)

(Total: 25 marks)

QUESTION 2

A. Fintech Industries is in the process of choosing the better of two equal risk, mutually exclusive capital expenditure projects. The relevant cash flows for each project are shown in the following table. The firm's cost of capital is 14%.

	Project A	**Project B**
Initial Investment (CF_0)	RM 28,500	RM 27,000
Year (t)	Cash Inflow (CF_t)	
1	RM 10,000	RM 11,000
2	10,000	10,000
3	10,000	9,000
4	10,000	8,000

Based on the case information above, answer the following questions. Please show all your workings in detail including the formula used.

a. What is the Net Present Value (NPV) of the proposed project? (6 marks)
b. What is the Profitability Index (PI) of the proposed project? (4 marks)

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c. What is the Payback Period (PP) of the proposed project? (4 marks)
d. Based on your analysis, which project should you recommend the management of Fintech Industries? Justify. (3 marks)

B. Summertime Incorporation is considering a new three-year expansion project that requires an initial fixed asset investment of RM 3.9 million. The fixed asset will be depreciated straight line to zero over its three years tax life. The project is estimated to generate RM 2,650,000 in annual sales, with a cost of RM 840,000.

a. If the tax rate is 35%, what is the Operating Cash Flow (OCF) for this project. (4 marks)
b. Suppose the required return on the project is 12%, what is the project's Net Present Value (NPV). (4 marks)

(Total: 25 marks)

QUESTION 3

A. Share in Country Road Industries has a beta of 0.85. The market risk premium is 8% and the T-bills are currently yielding at 5%. The company's most recent dividend was RM 1.60 per share and the dividends are expected to grow at 6% annual rate indefinitely.
   a. If the share sells for RM 37 per share, what is your best estimate of the company cost of equity? (5 marks)
   b. How is it possible that dividends are so important but at the same time dividend policy is irrelevant. (3 marks)

B. Titan Mining Corporation has 9 million shares of ordinary shares outstanding 250,000 shares of 6% preferred shares outstanding, and 105,000, 7.5% semiannual bond outstanding, par value of RM 1,000.

The ordinary shares currently sell for RM 34 per share and have a beta of 1.25.
The preferred shares currently sell for RM 91 per share.
The bonds have 15 years to maturity and sell for 93% of par. YTM is 8.33%
The market risk premium is 8.5%, T-bills (risk free rate) are yielding at 5%
Titan Mining Corporation's tax rate is 35%.

a. What is the cost of equity? (2 marks)
b. What is the cost of preferred share? (2 marks)
c. What is the cost of debt? (2 marks)

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d. What is the weightage of each of the capital structure components? (6 marks)
e. What is the overall weightage average cost of capital (WACC)? (3 marks)
f. If Titan Mining is evaluating a new investment project that has the same risk as the firm's typical project, what rate should the firm use to discount the project's cash flow? (2 marks)

(Total: 25 marks)

QUESTION 4

A. Beauty Care Company is concerned about managing cash efficiency. Below is some of the Income Statement and Balance Sheet information (in thousands) for the recent years.

Items	Ending Balance
Net Sales	RM 11,500
Cost of Goods Sold	8,200

Items	Beginning balance	Ending Balance	Average
Inventory	RM 2,000	RM 3,000	RM 1,500
Account Receivable	1,600	2,000	1,800
Account Payable	750	1,000	875

a. What is the company's Operating Cycle? (6 marks)
b. What is the company's Cash Cycle? (2 marks)
c. Based on the 5C's of credit, briefly explain THREE (3) factors that determine the length of the credit and why each is important. (6 marks)

B. Thompson Paint company used 60,000 gallons of pigment per year. The cost of ordering pigment is RM 200 per order and the cost of carrying the pigment in inventory is RM 1.00 per gallon per year. The company used pigment at a constant rate every day throughout the year.

a. Calculate Economic Order Quantity (EOQ). (4 marks)

b. Based on your EOQ, what is the total cost of inventory for Thomson Paint? (6 marks)
c. Based on your EQQ, how many times do you suggest Thomson Paint replenish their inventories in a year? (1 marks)

(Total: 25 marks)

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FORMULA

Future Value:

$FV = PV(1 + r)^t$

Annuities

$$PV = PMT\left[\frac{1-\frac{1}{(1+r)^t}}{r}\right]$$

$$FV = PMT\left[\frac{(1+r)^t-1}{r}\right]$$

Perpetuity: PV = PMT / r

EAR & APR

$$EAR = \left[1+\frac{APR}{m}\right]^m - 1$$

$$APR = m\left[(1+EAR)^{1/m} - 1\right]$$

Bond Pricing

$$\text{Bond Value} = C\left[\frac{1-\frac{1}{(1+YTM)^t}}{YTM}\right] + \frac{F}{(1+YTM)^t}$$

Stock Value

$$\hat{P}_0 = \sum_{t=1}^{\infty}\frac{D_t}{(1+R)^t}$$

Estimating Dividends

Zero growth: $P_0 = D / R$

Constant Growth Stock: $D_t = D_0(1+g)^t$

Dividend Growth Model:

$$\hat{P}_0 = \frac{D_0(1+g)}{R-g} = \frac{D_1}{R-g}$$

Nonconstant + Constant growth

$$\hat{P}_0 = \frac{D_1}{(1+R)^1} + \frac{D_2}{(1+R)^2} + \frac{D_3}{(1+R)^3} + \ldots + \frac{D_\infty}{(1+R)^\infty}$$

Net Present Value

$$NPV = \sum_{t=0}^{n}\frac{CF_t}{(1+R)^t} - CF_0$$

Cost of equity

$$R_E = R_f + \beta_E(E(R_M) - R_f)$$

WACC

$= E/V \times R_E + P/V \times R_P + D/V \times R_D(1 - T_C)$

Operating cycle

= inventory period + accounts receivable period

Cash Cycle

= Operating Cycle – Accounts payable period

EOQ Model

$$Q^* = \sqrt{\frac{2TF}{CC}}$$

End of Paper